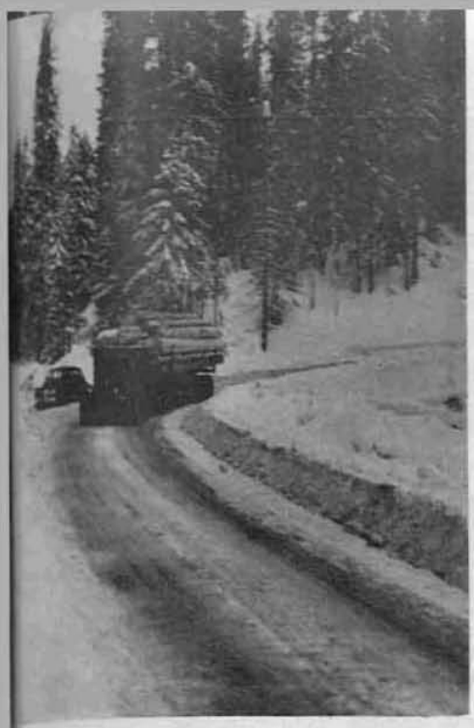

Logging truck riding easily over calcium chloride treated road on Bob's Creek.

Calcium Chloride

That America is on wheels is never more readily apparent to the manufacturer, retailer or the consumer than during the cold weather season and when our roads and highways are covered with ice and snow. We are reminded that the nation's physical and business health require usable roads at all times. So it is with Potlatch Forests, Inc.

Realizing the need for passable roads for our logging trucks from the landings to the mill or railhead, the woods department has been experimenting with a substance called calcium chloride. The testing has been carried on under the direction of John Huff.

What is calcium chloride? It is a chemical compound with the formula CaC12. It occurs in solution form and must be separated from other compounds and reduced to flake by a highly involved manufacturing process. Commercially it is obtained in the form of white flakes of uniform size which are free flowing and easily mixed with abrasives. These flakes have a great attraction for moisture. It absorbs moisture from the air and dissolves in its own solution, thus when added to damp abrasives it readily goes into a solution which permeates through the pile. Each particle of the abrasive is then coated with calcium chloride in solution form. One pound of calcium chloride will absorb five pounds of moisture.

This solution of flake calcium chloride resists evaporation and does not freeze. It will also melt ice so that the abrasives become embedded in the surface of the ice or hard packed snow.

The first experiment with calcium chloride was made on a logging road at Camp 44, Avery. Approximately one ton of calcium chloride was spread on a 14 per cent grade. The results showed that the solution was effective for seven tenths of a mile each way from the area where it was applied. Snow was piled for a depth of 62 inches along the road which illustrates the amount of snow in the area.

The second experiment was made on the logging road of Camp 42 on Bob's Creek. The solution was applied for a distance of about 50 yards on a 14 per cent grade. At the time of this writing the effect had spread for a distance of three tenths of a mile each way from the original application.

The chemical reaction of this solution to snow and ice seems to reduce the moisture in the snow and leave a powdery substance that gives traction to trucks and automobiles.

A new experiment will be started in the near future on the Bob's Creek road by mixing the calcium chloride with an abrasive. It is planned to mix one pound of Bromate to 100 pounds of calcium chloride and mix this solution according to the following formula: 4 yards of 3/8" gravel to 400 pounds of calcium chloride mixture to 50 gallons of water.

A new device expected to interest fishermen is an electrified minnow bucket designed to keep the bait alive and kicking on long fishing trips. The bucket is equipped with a six-volt motor powered device that provides the necessary oxygen-water mixture to keep the minnows perky. The tiny motor operates off the car battery.

* * *

The man who enjoys running after women has a tough problem these days finding a woman who will run.

* * *

Student: "Why didn't I make 100 per cent on my test?"
Teacher: "You remember the question, 'Why did the pioneers go into the wilderness'?"
Student: "Yes."
Teacher: "Well, your answer, while very interesting, was not correct."

Cover Picture

What can be done with modern scientific developments is demonstrated in the cover picture of this issue. It shows a logging road leading to one of the landings on Bob's Creek in the Camp 42 logging area. Calcium chloride has been placed on this particular section and from the darkened tracks of the trucks it must be effective. The tracks were almost devoid of snow or ice. This particular section of the road was on a 14 per cent grade and the trucks were not using chains to make the ascent. The snow seemed to be left in a powder condition with no moisture.

The cover picture will also indicate the amount of snow that has fallen in the area and the winter conditions of logging.

Woman's chief asset is man's imagination.

PROPERTY TAXES

Paid by Potlatch Forests, Inc., in property taxes, exclusive of income taxes, gasoline taxes, car licenses, social security taxes, power kilowatt taxes, franchise taxes, etc., was the amount of $271,924.25 in 1948. Paid in other years was—

1940	$164,295.96
1941	177,875.15
1942	147,260.52
1943	178,621.99
1944	160,364.14
1945	208,160.78
1946	217,896.60
1947	245,196.31
1948	271,924.25

TRACTIONIZING . . . . . "No more worries while driving on snow or icy roads," states John Huff, PFI tireman. "With tractionized tires you will be free of the dangers of sliding on slippery roads even without chains." This machine, shown below at work on one of PFI cars, was first developed by the Goodyear Tire and Rubber Company. Huff, spying this machine in Spokane last fall and after witnessing a demonstration, saw no reason why we couldn't build our own machine for our use. It consists of two 6" solid steel drums with two nailed bands on each drum. The protruding nails have a special spacing according to specifications. The machine was constructed at the machine shop at Clearwater and the company sedans were the first to be tractionized. The method of tractionizing is as follows: For passenger cars each tire is run on the machine for three minutes with 40 lbs. of air at 15 mph in second gear; then it is run for 3 minutes with 20 lbs. of air at 15 mph in second gear. Trucks are run 5 minutes with 80 lbs. of air at 10 mph in low gear and 3 minutes with 30 lbs. of air at 10 mph in second gear. From the remarks of those who have driven tractionized tires during the recent icy road conditions, they must be tops. There has been nothing but praise.